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**Signing Ceremony between** 

**QASCO and ITACO (CVRD)** 

ISSUE NO. 74 JUNE 2005

# R GLOBAL Limited

QASCO signs MoU with ESSAR Global Limited to build a new steel plant

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## EDITOR'S MESSAGE

#### Dear reader,

Al Solb Issue No. 74 in its new form is in your hands now. It gives a clear insight of QASCO's achievements, most noticeably the contract signed with the Brazilian company CVRD to supply nearly 2,660,000 tons of raw steel billets

A memorandum of understanding was also signed between QASCO and International Essar Company Ltd. to build a self-contained steel factory with an annual output capacity of 4 million tons.



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## **REVIEW OF THE PERFORMANCE OF DIRECT REDUCTION PLANT (JANUARY – MARCH 2005)**

Building on the trendsetting results of 2004, Direct Reduction Plant is set to achieve further heights of excellence in all fields of plant operation and is poised to add a new work culture based on the 'Corporate Values' among the management and staff.

## Some of the highlights of the first Quarter of 2005 are:

#### **OPERATION RESULTS**

- 1. The plant operated at 108 tons/hour on 19th and 23rd March 2005, averaging 106.8 tons/hour.
- 2. The daily production record was broken 9 times during this period and the latest record of 2562 MTPD was posted on 24th March 2005.
- 3. Monthly production record was broken once in January 2005 by producing 75888 MT.
- 4. Average stable quality of SPI was maintained to cater to the needs of the Steel Making Shop.
- 5. Process Improvements

Further improvements were achieved in the furnace dumping process in February 2005. Furnace dumping can now be done within 6.28 hrs compared to the previous duration of 6.98 hrs.

During the plant start-up on 11th March 2005 the product at wiper bar was reached within 10.12 hrs, breaking the previous time of 10.23 hrs.

New 'Refractory Dry-out & Commissioning' procedure was adopted after major repairs. Net time saved was recorded as 40 hours.

#### INNOVATIONS

1. Top Gas Scrubber

This vessel is modified internally, by removing two mist eliminators. The upgraded mist eliminators, with externally installed Mesh Padded Demister Vessel has increased the mist removing efficiency.

2. Feed Mix Gas Mist Eliminator Vane type mist eliminator designed for higher flows has improved the gas quality to the reformer. The meter pipe elbows have been replaced with standard elbows to reduce pressure drop.

#### SAFETY AND ENVIRONMENT

Thanks to the untiring and ever vigilant attitude of all the DR staff the DR Department was awarded the General Manager's Safety Award & Environment Award for the Year 2004.



Continual improvement in Health, Safety & Environment is the focus ahead. Two Q.C. Circles are working on the theme.

#### GENERAL

- All Direct Reduction Staff and their families attended social evenings, with live entertainment and dinner, on a number of occasions.
- Awareness on the Company's Code of Ethics was discussed in general at grass roots.
- Interactions with operatives and on line supervisors are progressing to improve the work culture.
- The operatives are encouraged to attend various sports activities related to the anniversary of the organisation and are being appreciated on their excellent performances.

## **PRODUCTION PERFORMANCE** JANUARY – APRIL 2005



The performance of all the production units in the Manufacturing Department (EF/RM) exceeded the budget figures and showed overwhelming results during the first four months of 2005. The results achieved against the budget in each shop are illustrated below.

	EF section (Molten Steel)	CC Section (Billet)	RM Section (Bar)	
Budget (tons)	353,694	348,033	239,065	
Actual (tons)	353,844	346,810	257,509	
Difference (tons)	+ 150	(1,222)	+18,444	



#### **EF SECTION**

#### **PROCESS INNOVATIONS**

During the first quarter of year 2005 several process modifications were implemented that reflected positively on the increase of molten steel production.

- Due to the introduction of higher percent scrap the operation pattern has been changed to avoid furnace disturbance, by modifying feeding pattern and melting procedure.
- Level-II automation has been applied in EF-3, which has led to reduced tap-to-tap time and power consumption.
- Introduction of EBT breaking machine for renewal of EF-3 EBT (Eccentric Bottom Tapping) has resulted in an increase in available operation hours.
- Introduction of dololime with RHI Gunning Robot has resulted in the reduction of repair time and has increased wall life. This will result in an increase in operation hours.
- By modifying the power pattern in EF 1&2 the leakage in the water cooled boxes has been reduced. This in turn has reduced the unexpected suspension time.



#### **RAW MATERIALS DIVERSIFICATION**

As a step towards reducing production cost as well as improving the operation conditions, new raw material has been introduced.

 New gunning material for the furnace wall as well as machine will be used in EF 1&2. This will reduce the gunning time and will subsequently increase the available operation hours.



#### **PLANT UPGRADES**

To maintain the plant condition and boost production, certain modifications were carried out in the existing equipment.

- New Dust Collection System with Secondary System will be introduced in old melt shop.
- A study is underway to modify EF-1 in order to increase its production by 30%.
- Study of introducing gas burners in EF-1 wall was completed and implementation will be done along with the upgrading plan of the furnace.

#### **CC SECTION**

- Introduction of color coding for sales billets, for increased customer satisfaction.
- Installation of CNC is in progress. This will lead to an increase in CC sequence ratio and subsequently CC yield.

#### LOGISTICS SECTION

- Trials using monolithic lining in ladle were carried out. This will increase ladle life and subsequently reduce refractory cost.
- Application of de-breaking bricks machine is expected to reduce stoppage time.

### **SAFE JOB ANALYSIS**



## The figure below is the basis for the control of Health, Safety and Environmental performance, identifying hazards and assessing the corresponding risks. There will be risks that are unacceptable. improvement measures have to be implemented for these risks.

The risk assessments that have been carried out have resulted in a list of significant safety aspects. One method for identification of improvement measures is Safe Job Analysis. The method is not complicated but it requires that the personnel carrying out the analysis are able to describe the job activities correctly and to include all activities that may expose the employee to the hazards. The steps of the Safe Job Analysis are:



- 1. Organise and plan the Analysis
- 2. Identify and describe Job Activities (This is the most critical part of the analysis. Activities outside normal practices have to be included as well.)
- 3. Identify hazards related to the job activities
- 4. Estimate risk i.e. frequency and consequence (Use data from risk register)
- 5. Define risk acceptance criteria i.e. risks that cannot be tolerated
- 6. Identify and implement remedial actions

Safe Job Analysis is a systematic approach to safety control. In a hazardous area there will always be some safety controls in place, personal protective equipment, procedures to be followed etc. However, the



identification and implementation of the controls may not be based on a systematic evaluation and the personnel working in the area may not have been properly involved. The Safe Job Analysis provides the approach to achieve both a systematic methodology and the involvement of the concerned personnel. The Safe Job Analysis can be continuously maintained as new information and experience can be applied.

As shown in the figure, risk reduction is the area where QASCO can improve. Involvement of the employees in the work areas will be the best way of improving. As indicated above, the critical part of the Safe Job Analysis is the description of the job activities. Who can do this better than those doing the job? When it comes to implementing remedial actions, who can do this more efficiently than those who have done the evaluations and have decided the actions?

## HES PERFORMANCE SAFETY PERFORMANCE

The Safety and Housekeeping awards for 2004 were distributed at a meeting held in April. The results are based on a set of criteria. The criteria for safety award were safety training and communication, safety patrols, near miss and sub-standard condition reporting, lost time accident frequency etc. The awards are also divided into categories - three for housekeeping awards and two categories for safety awards. The table below shows the award distributions for 2004. There are also several other projects that will address QASCO's other main significant environmental issue - the disposal of production waste. There is a growing interest in the product wastes that were earlier disposed in the slag yard area. The goal of 'no disposal' after 2006 seems increasingly realistic.



PRIZE	SAFETY AWARDS		HOUSEKEEPING AWARDS			
	Category A	Category B	Prize	Category 1	Category 2	Category 3
Gold	Direct Reduction	Technical Dept	1	Direct Reduction	Material Control	IT Dept.
Silver	Manufacturing	Warehouse	2	Maint. CRS	Prod. Delivery	HESQ Dept.
Bronze	Utility	Prod. Delivery	3	Rolling Mill	Warehouse	Gen. Serv.

In the category for Operational Departments, the Direct Reduction Plant came on top for both the safety and housekeeping awards. As the criteria was more or less identical to last year, the scores for the different years could be compared. Most departments showed a significant improvement in their scores.

#### Environment

The contracts for the expansion projects were awarded during the last few months. The Environmental Impact Assessment of the DRI Plant has already been completed. Assessments for the Steel Melt Shop and Rolling Mill are currently underway.

New modern plants will not have significant environmental impacts. The Steel Melt Project will include revamping of EF 2 and will thereby have a positive impact as the diffuse dust emissions from the existing furnace will disappear.



## QASCO SIGN MOU WITH ESSAR GLOBAL LIMITED TO BUILD A NEW STEEL PLANT



QASCO signed MoU with ESSAR Global Limited to build a new steel plant which can annually produce 4 million tons. On Tuesday 29 March 2005, QASCO signed an MoU with ESSAR Global Limited to build a new steel plant which can annually produce 4 million tons. The MoU was signed by H.E. Sh. Nasser Bin Hamad Al Thani, Director & General Manager of QASCO and Mr. Ravi Ruia, Vice Chairman of ESSAR Global Ltd. The signing ceremony was attended by H.E. Mr. Yousef Hussain Kamal, Minister of Finance and Chairman of QASCO Board of Directors and the QASCO Management.

According to the MoU the new plant will come on-line in the first half of 2008. The plant will bring together the unwavering commitment of QASCO and the professional expertise of ESSAR Group of India in creating new opportunities for the economic benefit of both the countries. QASCO has entered into a joint venture with ESSAR Global Limited to set-up up a 4 MMTPA integrated steel plant in Qatar at a total investment cost of US\$ 1.25 billion.

The plant is proposed to be built in Mesaieed Industrial City utilising high grade iron ore from India.

## SIGNING CEREMONY BETWEEN QASCO AND ITACO (CVRD)



Qatar Steel Company was established in 1974 as the first integrated Steel plant in the Arabian Gulf region. It manufactures billets and reinforced bars. Its

manufacturing facilities include a DR Plant, Electric Arc Furnace, Continuous Casting Machines and Rolling Mill. Production capacity of the plant is more than one million tons per annum.

The first contract with CVRD for the purchase of DR grade oxide pellets was entered in 977. QASCO feels that by such long-term contracts will be mutually beneficial for both the parties and will set the pace for long-term business associations and healthy relationships.

## AWARD FUNCTION FOR TRAINEES AT QASCO

As part of its ongoing Qatarization efforts QASCO has taken many initiatives in the past to improve its training facilities and make the company more attractive for Qataris. The company has set for itself an ambitious target of achieving a 50% Qatarization level. In order to achieve this objective, the Company selects trainees every year through Qatar Petroleum. These trainees undergo a series of Training Programmes both in class rooms as well as on the job.

To encourage trainees to excel in their on-the-job training an award for 'Best Trainee of the Month' is given on the basis of performance, attendance and behaviour. The award includes a cash prize and a certificate.

To get good support from the departments another biannual award for the 'Best Department Trainee' has also been initiated. This award is given to the department which provides the best support to Qatarization training. The measurement criteria include support, safety training, training/information, manuals/books available, number of OJT books, development of training aids etc.

The program was organised by the Staff Development & Training of HR Department. Sh. Nasser Bin Hamad Al-Thani, Director & General Manager gave away the awards at this function. In his speech he said that the QASCO Management was very supportive to the Qatarization Process and has taken many initiatives in



this direction. The programme was attended by the General Manager, Administration Manager, Managers, Qatarization Committee Training Coordinator, Coach, Members of HRD and Trainees. The list of awardees is as follows:

1. MohdNaji Al-Thahabi	Material Control	Aug 2004
2. Mohd Naji Al-Thahabi	Material Control	Sept 2004
3. Hamad Fahad Al-Marri	Material Control	Oct 2004
4. Noor Hamad Jaber	HR Department	Dec 2004

The award for the best Department was given by the General Manager to the Manufacturing Department. Mr. Yousef Al-Emadi, Manager of the Manufacturing Department and Mr. Nasser Al-Subaei, Training Coordinator received the awards.

## **QATARI ARMY OFFICERS VISIT QASCO**

Within the Company's plan to strengthen social ties in the Qatari Society, to contribute towards creating a consolidated generation and to raise the Army Officers' (Mechanical Section) level of expertise the Qatari armed forces organised a visit for its trainee personnel to the QASCO plant in Mesaieed Industrial City where the officers witnessed the various processes and stages of steel bar production.

The public relations office organised a familiarisation programme for the visitors. The programme included a detailed film on the various production stages and a guided tour around the facilities of the Company. At the end of the visit the leaders of the visiting team praised the Company's officials for the good reception they gave to the visitors.

